

## II. CLAIM AMENDMENTS

1. (Currently Amended) A method of using mobility agents in a telecommunications system, which telecommunications system comprises at least one mobile node supporting the mobile IP and several network elements, of which network elements at least one comprises one or more mobility agents configured to transmit advertising messages to mobile nodes, the method comprising:

establishing a data transmission connection between a mobility agent and one or more network elements in the system to collect attribute information,

transmitting to the mobility agent information on attributes of one or more network elements from the connected one or more network elements,

~~collecting by a mobility agent information on attributes of one or more network elements in the system from one or more network elements in the system,~~

transmitting said information on the attributes in advertising messages from the mobility agent to at least one mobile node, and

using said information in the mobile node in the selection of a serving network element.

2. (Previously Presented) A method according to claim 1, wherein:

said information is transmitted in advertising messages including care-of addresses of the mobility agents periodically, at the request of a mobile node, or periodically and at the request of a mobile node.

3-4. (Cancelled)

5. (Previously Presented) A method according to claim 1, wherein the mobile node is wireless and the telecommunications system is wireless and comprises access points which offer a wireless connection to at least one mobile node, said information comprising at least one of the following:

loads of different access points,

information on the least loaded access point,

information on the recommended access point, and

other quality of service parameters of the access points.

6. (Previously Presented) A method according to claim 5, wherein:

the attributes of different access points are compared in the mobile node on the basis of said information,

the access point that on the basis of its attributes and any other criteria, can offer a telecommunications connection to the mobile node is selected, and

a connection is established between the selected access point and the mobile node.

7. (Currently Amended) A method of utilizing advertising messages in a telecommunications system, which telecommunications system comprises at least one mobile node and at least one router, the router being configured to transmit advertising messages to mobile nodes, the method comprising:

establishing a connection between at least one router and at least one network element to collect attribute information,

transmitting to the router information on attributes of one or more network elements from the connected network element,

~~collecting by at least one router information on attributes of one or more network elements in the system from one or more network elements in the system,~~

transmitting advertising messages from ~~at least one~~the router to at least one mobile node, the messages including said information on the attributes of one or more network elements, and

using said information in the mobile node in selection of a serving network element.

8. (Cancelled)

9. (Previously Presented) A method according to claim 7, wherein the mobile node is wireless and the telecommunications system is wireless and comprises access points which offer a wireless connection to at least one mobile node, said information comprising at least one of the following:

loads of different access points,

information on the least loaded access point,

information on the recommended access point, and

other quality of service parameters of the access points.

10. (Previously Presented) A method according to claim 9, wherein the attributes of different access points are compared in the mobile node on the basis of said information,

the access point that on the basis of its attributes and any other criteria, can offer a telecommunications connection to the mobile node is selected, and

a connection between the selected access point and the mobile node is established.

11. (Currently Amended) A network element of a telecommunications system, the network element comprising:

~~an IP mobility agent configured to receive information on the attributes of one or more other network elements in the~~

telecommunications system, wherein the network element is configured to connect a network element to collect attribute information,

the IP mobility agent is configured to receive information on attributes of one or more network elements from the other network element separate from the network element comprising the IP mobility agent, and

the IP mobility agent is ~~further~~ configured to transmit the information of one or more other network elements in advertising messages to at least one mobile node.

12. (Previously Presented) A network element according to claim 11, wherein the information in advertising messages further comprises attributes of one or more access points of the telecommunications system.

13. (Currently Amended) A router configured to transmit advertising messages to mobile nodes, the router comprising:

means for connecting a network element separate from the router to collect attribute information,

means for receiving information on attributes of one or more network elements from the network element separate from the router,

~~means for collecting information on the attributes of one or more other network elements of the telecommunications system, and~~

means for transmitting the information of one or more other network elements in advertising messages to at least one mobile node.

14. (Currently Amended) A router according to claim 13, wherein the information in advertising messages comprises attributes of one or more access points of the telecommunications system.

15. (Currently Amended) A mobile node supporting the mobile IP for a telecommunications system, which telecommunications system comprises several network elements, of which at least one comprises one or more mobility agents, said mobile node comprising:

reception means for receiving in advertising messages attribute information on one or more network elements from at least one ~~or more~~ mobility agents, said information being ~~collected~~ received by the at least one ~~or more~~ mobility agents from another network element separate from the network element comprising the at least one mobility agent and connected to collect attribute information ~~one or more other network elements~~, and

processing means for selecting a serving network element on the basis of said information.

16. (Previously Presented) A mobile node according to claim 15, wherein:

the processing means are configured to compare attributes of the foreign agents of the basis of said information,

the processing means are configured to select a foreign agent that on the basis of its attributes can take care of data transmission of the mobile node, and

the processing means are configured to transmit a registration request to the selected foreign agent.

17. (Previously Presented) A mobile node according to claim 15, wherein:

said information in advertising messages comprise attributes of the access points of the telecommunications system,

the processing means are configured to compare the attributes of the access points on the basis of said information received from the mobility agents,

the processing means are configured to select the access point that on the basis of its attributes and any other criteria, can offer a telecommunication connection to the mobile node, and

the processing means are configured to establish a connection between the selected access point and the mobile node.

18. (Cancelled)

19. (Currently Amended) A mobile node for a telecommunications system, which telecommunications system comprises one or more

routers configured to transmit advertising messages having attribute information, said mobile node comprising:

reception means for receiving the attribute information on one or more network elements~~routers~~ from at least one or more routers, said information being ~~collected~~ received by the at least one or ~~more routers~~ from ~~one or more~~ another network elements separate from the network element comprising the at least one router and connected to collect attribute information, and

processing means for selecting a serving network element on the basis of said information.

20. (Previously Presented) A mobile node according to claim 19, wherein said information in advertising messages comprises attributes of the access points of the telecommunications system,

the processing means are configured to compare the attributes of the access points on the basis of said information,

the processing means are configured to select an access point that on the basis of its attributes and any other criteria can offer a telecommunication connection to the mobile node, and

the processing means are configured to establish a connection between the selected access point and the mobile node.

21. (Previously Presented) A method according to claim 6, wherein said other criteria comprises radio channel measurements.



22. (Previously Presented) A method according to claim 10, wherein said other criteria comprise radio channel measurements.

23. (Previously Presented) A mobile node according to claim 17, wherein said other criteria comprise radio channel measurements.

24. (Previously Presented) A mobile node according to claim 20, wherein said other criteria comprises radio channel measurements.

25. (Currently Amended) A network element according to claim 11, wherein ~~the network element is configured to establish a connection to the one or more other network elements and the IP~~ mobility agent is configured to request attribute information from the ~~one or more~~ other network elements.

26. (Currently Amended) A router according to claim 13, wherein the router is configured to ~~establish a connection to the one or more other network elements and~~ request attribute information from the one ~~or more~~ network elements.

27. (Previously Presented) A mobile node according to claim 15, wherein

said information comprises at least one of the following foreign agent attributes:

current delay of the connection offered by the foreign agent,

average delay of the connection offered by the foreign agent,  
jitter of the connection offered by the foreign agent,  
number of users served by the foreign agent, and  
throughput of the foreign agent.

28. (Previously Presented) A method according to claim 1,  
wherein:

attributes of different foreign agents are compared in the mobile  
node on the basis of said information received from the foreign  
agents,

the foreign agent that on the basis of its attributes can take  
care of data transmission of the mobile node is selected, and

a registration request is transmitted to the selected foreign  
agent.

29. (Previously Presented) A method according to claim 27,  
wherein

said information comprises at least one of the following foreign  
agent attributes:

current delay of the connection offered by the foreign agent,

average delay of the connection offered by the foreign agent,

jitter of the connection offered by the foreign agent,

number of users served by the foreign agent,

throughput of the foreign agent,

load of the foreign agent, and

proportional load of the foreign agent compared to the other foreign agents in the system.